

CLAIMS

1. A method for measuring the amount of liquid  
5 present in a container to which means for making said  
liquid flow from said container to a point of use are  
in particular connected, in which method the weight  $P_i$   
of liquid in the container is measured at a time  $t_i$ ,  $i$   
10 varying from 0 to  $n$ , this measurement being repeated at  
time  $t_{i+1}$ , then at time  $t_{i+2}$ , until time  $t_n$ ,  $n$  being an  
integer greater than 3, in which the weight change  
 $\Delta P_i = P_i - P_{i+1}$  of liquid between times  $t_i$  and  $t_{i+1}$ , where  
 $\Delta t = t_{i+1} - t_i$ , is also measured so as to generate at  
15 time  $t_n$  a signal  $S$  indicating that the container may be  
considered as being empty when  $\Delta P_i$  is less than a  
predetermined fraction  $F$  of the weight of the container  
and/or of the liquid initially contained in the latter.

2. The method as claimed in claim 1, wherein the  
20 measurement of the weight change  $\Delta P_i$  is triggered only  
when the value of the direct or indirect measurement of  
the weight of the container and/or of the liquid is  
less than or equal to a predetermined fraction  $F$  of the  
initial weight of the container and/or of the liquid  
25 contained in the container.

3. The method as claimed in claim 2, wherein the  
predetermined fraction  $F$  is less than or equal to 10%  
of the initial weight of the container and/or of the  
30 liquid initially contained in the latter.

4. The method as claimed in one of claims 1 to 3,  
wherein the time interval  $\Delta t_i = t_{i+1} - t_i$  between two  
successive measurements of the weight of the container  
and/or of the liquid is predetermined, preferably about  
35 ten seconds.

5. The method as claimed in one of claims 1 to 4,  
wherein the flow of the liquid is at least partly

caused by the pressure exerted by a pressurized gas lying above the surface of the liquid in the container, said gas having a purity compatible with that of the liquid.

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6. The method as claimed in claim 5, wherein the gas is a gas essentially inert with respect to the liquid to be propelled.

10 7. The method as claimed in either of claims 5 and 6, wherein the liquid is sent to a second container before being sent to its point of use.

15 8. The method as claimed in one of claims 5 to 7, characterized in that the gas is chosen from helium, neon, xenon, nitrogen, argon, krypton and/or carbon dioxide.

20 9. The method as claimed in one of claims 5 to 8, characterized in that the gas has a pressure of between  $10^5$  and  $10^6$  pascals.

25 10. An apparatus for delivering a liquid chemical product, comprising a container that contains the chemical liquid to be delivered, means for connecting this container to a point of use where the liquid product has to be delivered, and means for measuring the amount of liquid in said container, which also includes clock means so as to generate, at successive  
30 times  $t_i$ ,  $t_{i+1}$  etc., a signal for triggering a measurement  $P_i$ ,  $P_{i+1}$ , etc. of the amount of said chemical liquid at said times  $t_i$ ,  $t_{i+1}$  etc, storage means for recording the measurements  $P_i$ ,  $P_{i+1}$ , etc. of the amount of said liquid at times  $t_i$ ,  $t_{i+1}$ , etc.  
35 respectively, means for calculating the difference in the amount of liquid  $\Delta P_i = P_i - P_{i+1}$  in the container between times  $t_i$  and  $t_{i+1}$ , means for comparing  $\Delta P_i$  with a predetermined value  $F$  and means for generating a first signal  $S_1$  if  $\Delta P_i > F$  or a second signal  $S_2$  if  $\Delta P_i \leq F$ .